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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,899	02/13/2004	Yousuke Yoneda	1419.1090	6096

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EXAMINER
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CEGIELNIK, URSZULA M

ART UNIT	PAPER NUMBER
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3711

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/777,899

Applicant(s)

YONEDA, YOUSUKE

Examiner

Urszula M. Cegielnik

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8, 9, 11, 12, 14, 15, 17, 18, 20, 21, 24-27, 31, 32, 34, 35, 38 and 39 is/are allowed.
- 6) ☒ Claim(s) 1-7, 10, 16, 19, 22, 23, 28-30, 33, 36 and 37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

Claim 29 is objected to because of the following informalities: Claim 29 appears to have a grammatical error or is incomplete. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mabuchi et al. (US Patent No. 4,197,672) in view of Harada (US Patent No. 6,796,874).

Mabuchi et al. disclose a motor (2) mounted in front of a front wheel axle (8) on a chassis (11) for driving a front wheel (1), the front wheel (1) is driven by the motor (2) to make the toy vehicle run (col. 2, lines 41-49); the motor (2) is mounted adjacent to a front wheel axle (8); the motor (2) is detachably mounted (via a gear box mount 17) on the chassis (11); a right driven link (10), and a left driven link (10), each having a first end and a second end, each first end of the right and the left driven links (10) is supported by the chassis (11) swingably in a horizontal direction (see Figure 3, for example), a driving link (6) crosses over between the second ends of the right and left driven links, two spindles (9) are swingably supported by the right and left driven links (10), and each of the two spindles (9) is connected to the front wheel axle.

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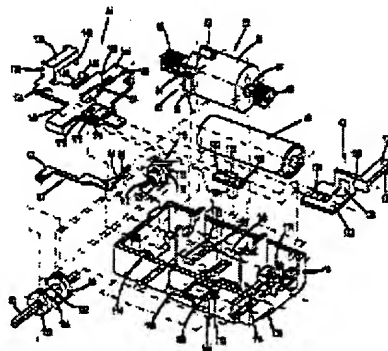
Mabuchi et al. do not disclose the motor being mounted non-coaxially.

Harada teaches a motor (38) being mounted non-coaxially with a front wheel axle (30).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the abovementioned claimed features as taught by Harada, since such a modification would permit more precise steering of the front wheels.

Claims 5, 28, 29, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Wu et al. (US Patent No. 6,371,830).

Mabuchi et al., as modified by Harada, lacks an intermediate shaft comprising a first gear and a second gear which are engaged with a third gear fixed on a motor shaft of the motor and a fourth gear fixed on the front wheel axle and is detachably mounted on the chassis between the motor shaft and the front wheel axle.



Wu et al. disclose a motor (36) mounted on a front part of a chassis (14) for driving a front wheel (22,24); the motor (36) is mounted adjacent to a front wheel axle

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(18); the motor (36) is detachably mounted on the chassis (14); an intermediate shaft (112) comprising a first gear (116) and a second gear (118) which are engaged with a third gear (56) fixed on a motor shaft (54) of the motor (36) and a fourth gear (98) fixed on the front wheel axle (18) and is detachably mounted (*see Figure 5, for example*) on the chassis (14) between the motor shaft (54) and the front wheel axle (18); the first gear (116) and the second gear (118) are united (the first and second gears are united in that they function to transmit power); the first and second gears are spaced (the first and second gears are spaced in that they lie parallel to each other).

It would have been obvious to one having ordinary skill in the art to provide an intermediate shaft comprising a first gear and a second gear which are engaged with a third gear fixed on a motor shaft of the motor and a fourth gear fixed on the front wheel axle and is detachably mounted on the chassis between the motor shaft and the front wheel axle as taught by Wu et al., since such a modification would provide enhanced operational characteristics.

Claims 10, 13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Tai-Cheng (US Patent No. 4,743,214).

Mabuchi et al. disclose the claimed invention except for the driving link comprising a permanent magnet and coils at positions across the permanent magnet.

Tai-Cheng discloses a driving link (52,51) comprises a permanent magnet (48), and coils (49,50) provided at positions across the permanent magnet (48); the driving link (52,51) comprises a non-magnetized magnetic material (*the portions of reference*

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*numeral 51 excluding portions encompassing reference numerals 49 and 50), and coils (49,50) provided at positions across the non-magnetized magnetic material (the portions of reference numeral 51 excluding portions encompassing reference numerals 49 and 50).*

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the driving link comprising a permanent magnet and coils at positions across the permanent magnet as taught by Tai-Cheng, since such a modification would enhance the steering of the front wheels of the toy vehicle.

Claims 19, 30, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of Belton (US Patent No. 5,785,576).

Mabuchi et al., as modified by Harada, lacks a rear suspension structure.

Belton discloses a motor (30) mounted on a front part of a chassis (5) for driving a front wheel (12); a rear wheel (13) is provided with a suspension structure (68,69,70,71).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a rear suspension structure as taught by Belton, since such a modification would permit the vehicle to be supported when moving on uneven terrain.

Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 above, and further in view of D'Andrade et al. (US Patent No. 4,696,655).

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Mabuchi et al., as modified by Harada, lacks a rear wheel axle covered by an axle cover provided with a shaft which extends in the front to a back direction of the toy vehicle.

D'Andrade et al. teach a wheel axle (35) covered by an axle cover (13) provided with a shaft (41) which extends in the front to a back direction of the toy vehicle (see Figure 5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an axle cover with a shaft extending in the front to a back direction of the toy vehicle as taught by D'Andrade et al., since such a modification would permit the toy vehicle to have varied movement.

Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mabuchi et al. (US Patent No. 4,197,672) in view of Hoeting et al. (US Patent No. 6,095,891).

Mabuchi et al., as modified by Harada, lacks a spring to return a driving link to a neutral position.

Hoeting et al. teach a spring (56) which biases a driving link (46) to a neutral position.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a spring biasing a driving link to a neutral position as taught by Hoeting et al., since such a modification would permit the vehicle to have a neutral start position when the motor is not energized.

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***Allowable Subject Matter***

Claims 8, 9, 11, 12, 14, 15, 17, 18, 20, 21, 24-27, 31, 32, 34, 35, 38, and 39 are allowed.

***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. *Examiner notes that claim 6 is a duplicate of claim 5.*

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Urszula M. Cegielnik whose telephone number is 571-272-4420. The examiner can normally be reached on Monday through Friday, from 5:45AM-2:15PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eugene L. Kim can be reached on 571-272-4463. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EUGENE KIM  
SUPERVISORY PATENT EXAMINER